The Province of Alberta

IN THE MATTER OF "THE NATURAL GAS UTILITIES ACT"

—and—

IN THE MATTER OF an Enquiry into Scheme to be adopted for Gathering, Processing and Transmission of Natural Gas in Turner Valley

G. M. BLACKSTOCK, Esq., K.C., *Chairman*

Dr. E. H. BOOMER, F.C.I.C., *Commissioner*

Session:

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WITNESSES

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VOLUME 73

9.30 A.M. Session,
March 13th, 1946.

G. R. McLELLAN, direct examination resumed.

MR. McDONALD: I have not any further questions Mr. Chairman.

MR. BLANCHARD: I should like to have an opportunity of going into this matter with Mr. Hamilton before cross-examination.

THE CHAIRMAN: All right Mr. Blanchard you shall have that.

Q MR. CHAMBERS: Mr. McLellan has I think prepared a statement in answer for information to questions of Mr. Steer. Have you that statement ?

A I have some typed copies but we are getting some copies dittoed and they should be over before twelve o'clock.

Q Then perhaps we can deal with it. Have you typewritten copy with you ?

THE CHAIRMAN: Perhaps we had better wait until Mr. Steer is here.

(Mr. Steer now present)

Q MR. CHAMBERS: As I understand that statement you have prepared, contains what Mr. Steer asked for and some additional information. Would you just read into the record the part that Mr. Steer asked you to get ?

A Yes. He asked me to get the details of the calculation of the percentages which I used to allocate the gas gathering pressure cost of gasoline plant No. 1. I have the statement. It is headed: "Percentage, Shrinkage and Fuel Losses Attributable to Gasoline Absorption Process".

MR. HARVIE: Not so fast.

A Shall I read it again. "Percentage, Shrinkage and Fuel Losses Attributable to Gasoline Absorption Process". The statement is prepared for five years, 1939, 1940, 1941, 1942 and 1943 with combined totals for 1939 to 1943 inclusive. The details for gasoline plant No. 1 are as follows:

Daily average shrinkage and fuel consumption 1331 Mcf. 1940, 1609 Mcf. 1941, 2024 Mcf. I am getting dittoed copies of this made. 1942, 2553 Mcf. 1943, 3585 Mcf, and the combined totals 2220.

And the daily average gas processed 1939 26,700 Mcf. 1940, 26,038. 1941, 29,811. 1942, 39,888. 1943, 46,102 and average 33,708.

Those percentages work out to the following: 1939, 4.99. 1940, 6.18. 1941, 6.79. 1942, 6.40. 1943 7.78, and the average 6.59.

Now the statement also shows details of gasoline plant No. 2 and combined totals for both plants, but I do not think that is of any particular interest in this matter here.

MR. CHAMBERS: We will have copies for distribution of that.

MR. HARVIE: What Exhibit will that be ?

THE CHAIRMAN: Exhibit 157.

STATEMENT SHOWING PERCENTAGE, SHRINKAGE AND FUEL LOSSES ATTRIBUTABLE TO GASOLINE ABSORPTION PLANT NOW MARKED EXHIBIT 157.

THE CHAIRMAN: Is there any further cross-examination of Mr. McLellan at the moment.

RE-CROSS EXAMINED BY MR. STEER:

Q I wonder if you can tell me, Mr. McLellan, whether this in any way modifies the suggestions made by the Madison Company as to the distribution of the gas gathering and compression costs as between the absorption plant and the Madison submission. Is it proposed now that the percentage of the gathering compression cost to be borne by the absorption plant is on the average 6.59% ?

A I think the percentage works out a little differently in 1944.

Q Whatever it is based upon these figures that is the proposal is it ?

A That would be the same calculation, yes.

Q THE CHAIRMAN: Mr. McLellan, in Statement 1, showing income tax at certain amounts ?

A Yes.

Q Are those theoretical or actual figures ?

A Those are theoretical, sir.

Q And can you tell me if the income tax actually paid was greater or less than the amount shown in your theoretical statement ?

A For the years 1939 to 1943 the income taxes paid were substantially the same as those which I have given here. In 1944 they were somewhat less. 1945, it is estimated that -

MR. HARVIE: 1944 was less paid or on the statement ?

A The amount paid was somewhat less than I have shown in the statement.

Q THE CHAIRMAN: And to that extent the theoretical earnings would be increased. The factual earnings would be increased if you assume everything else in the Statement 1 is factual in regard to the income tax ?

A I might at this time give my reasons.

Q I am not quarrelling with you. I am merely trying to get the

facts. However, go ahead.

A In these statements the gasoline department is a division of the Royalite Oil Company and in these war years the Royalite producing department has received large tax credits which have been applied against the total revenue of the Company. It does not seem fair that the absorption plant should use the tax credits earned by the producing department. And another factor is this, that when we have been claiming this 10% rate for income tax on depreciations, we have been accelerating depreciation you might say and in the future that depreciation will not be available for income tax purposes.

Q If that is true of income tax then why charge the compensation money which arose purely because of the over production of the wells. Why charge that to the gasoline plant. If you do not give the gasoline plant a share of the income tax credits ?

A Well the profits that were paid under the compensation scheme was the profit or partly the profit of the gasoline plant.

Q Supposing the gasoline plant had been owned by William Smith instead of by the Royalite. Would you come back to the gasoline plant and say, pay us the money ?

A Well the compensation scheme was a separate settlement, sir. I think you would have to go right through the scheme.

Q Suppose the absorption plant had been owned by some one other than Royalite who put the gas through the absorption plant and Royalite took delivery of the residue gas and after four or five years the compensation arose because of over production of the wells in the gas cap. Would you have any right to come back at the owner of the absorption plant and make him pay a part of that compensation when he had nothing whatever to do with the over production of the wells ?

MR. CHAMBERS: I do submit sir with deference that is a matter of law and this witness would not be competent to answer that.

THE CHAIRMAN: Well I am going to give him a chance to answer it. The allocation of income tax is just a matter of law too Mr. Chambers.

A I do not think I could answer that sir. I do not know.

Q Would I be correct in assuming that since your depreciations were calculated on the ten year bases that the original plant constructed in 1933 in the one case and 1935 in the other, have both been completely amortized, the original plants ?

A The original assets, yes.

Q And the additions thereto in the intervening years have been amortized at the rate of 10% per annum and therefore must be substantially amortized now ?

A They are sir.

Q And your statement is a theoretical statement built upon public utility principles in that you reconstruct a rate base ?

A I have used the unit method of depreciation.

Q And reconstructed a rate base as if the absorption plant were a public utility ?

A In a similar manner, yes.

Q Although as a matter of fact the absorption plant is not a public utility. And the amounts that you have recaptured of your original investment were recaptured from a product which came out of the wells of many different owners ?

A Assuming that I have recaptured all my depreciations.

Q Well you have recovered all of your original investment. And you must have recovered a substantial portion of the additions you have made since 1933 and 35. That is so is it not. I agree,

Mr. McLellan, that there can be an argument about the question of recaptured, but so far as your books are concerned the recapture has been made in terms such as I have just mentioned ?

A We have a reserve for depreciation nearly equal to our asset value.

Q And in those assets you have included a share of your power plant and a share of your steam plant ?

A Yes sir.

Q On which you ask for unit depreciation ?

A No I think the electric -

Q That is a straight line basis ?

A Yes.

Q How did the Royalite charge the absorption plant with steam and electricity prior to the formation of Madison ?

A They were done on a percentage basis I think. I have the percentages in my report here. On Page 5 at the bottom, the percentages are listed at the bottom there.

(Go to Page 5942)

Q Now if you take the actual charges made by Royalite to the absorption plant, how would they compare with the depreciation and interest on investment shown in your theoretical statements, greater or less?

A Where do I show that in my statement, Sir.

Q Well, you show in your reconstructed rate base that there is....

A Statement 5, I think.

Q That there is the Electric Plant and the Boiler Plant?

A Yes.

Q And on that you expect to charge depreciation, which is the amount of the absorption gasoline?

A Yes.

Q And you calculated your rate of return on your investment and that investment includes those two items?

A Yes.

Q What I want to know is, how do the annual charges that would arise from that inclusion in the statement compare with the actual amount paid by the absorption plant for steam and electricity in the past?

A Well there was no calculation made for interest on investment.

Q No, no, but you show a return on your investment, you show a theoretical return on the investment?

A As a department, yes, and I have included just the portion of the Electric Plant, which the gasoline plant uses in my rate base.

Q Yes, but my question is not that, Mr. McLellan. Royalite charged the absorption plant with steam and electricity?

A Yes.

Q And that would come to so much per year?

A Yes.

Q I want to know how that amount previously charged would compare

with the amount which must now be paid on your theoretical rate base which includes those two items plus your actual rate of return?

A I think I have a statement "G" here in which I have distributed the operating expenses of the Gasoline Plant, which, calculated firstly,are calculated on the book depreciation base. Now, those expenses in the first column, Schedule "A", includes the expenses for steam and electricity which was charged to the absorption plant on using the book depreciation. Now then, when I revised my depreciation, I have made the adjustment shown on this page to those same expenses.

Q So that in your operating expenses in some place there would appear for 1939 $77,564.00 instead of $83,143.00?

A That is right, on Statement 1 of operating expenses, it is shown as $77,564.00.

Q To whom do you sell your gasoline?

A Imperial Oil.

Q Who fixes the price?

A I do not know.

Q Does Royalite fix the price?

A I do not know, sir. I do not think so.

Q No. I did not either. Have you any customers other than Imperial for natural gasoline?

A I could not say definitely.

Q Do you know if there is a free market for natural gasoline in that people can come and bid for the price, and say we are willing to negotiate a price with you, is there a free market for natural gasoline in that sense?

A I do not know.

Q If I adopt your theoretical statement as the basis on which I made the apportionment, would that involve your Company

requiring to keep two sets of books, one based upon my apportionment and the other for income tax and factual purposes? No objection to doing it, Mr. McLellan, you know? A lot of them do it, and quite properly, I just want to know if you will have to do it?

A Well, I do not know whether we are acting under regulation or not.

Q No, you are not, that is just exactly the point, Mr. McLellan, you are not coming under regulation. You should know, Mr. McLellan, I do not. You are a chartered accountant, you should know?

A Well I would have to know more particulars what the situation is, what you need this information for, etc.

Q Supposing I adopt this basis for making my apportionment?

A Yes.

Q Would not that necessarily involve your company having to keep two sets of books?

A If the calculation changes from year to year probably you would, but if it stays the same it would not.

Q You will agree that your depreciation schedule will be entirely out?

A If we keep separate sets of books.

Q Wouldn't you have to keep a separate set of records for income tax purposes if for nothing else?

A No.

Q You just make your adjustments do you?

A Our income tax depreciation and book depreciation at the present time agree.

Q Your unit depreciation as shown in here?

A Oh no.

Q Well, perhaps, I do not know enough about it to ask the

question properly, but I know what I am after, and I cannot get it now, so that I will leave it for the present and perhaps I will come back to it later. Anything further from Mr. McLellan at the moment? That is all for you now, Mr. McLellan. Mr. Blanchard will want to ask you some questions, and that will likely be tomorrow or next week.

MR. BLANCHARD: I am afraid I would not be ready until tomorrow. I have to go over the statement with Mr. Hamilton.

THE CHAIRMAN: I think tomorrow will be taken up by Mr. Hill. Is that right, Mr.Chambers?

MR. CHAMBERS: Yes.

THE CHAIRMAN: So that will leave you next week.

MR.BLANCHARD: Yes.

MR. CHAMBERS: I would like to call Mr.Smith to put in a statement for the 1945 operations.

.....

EARL C. SMITH, having been first duly sworn, examined by Mr.Chambers, testified as follows:-

Q Mr.Smith, you are the secretary of Madison Natural Gas Company Limited?

A Yes sir.

Q And you have held that position since when?

A I believe May 23rd, '45.

Q You succeeded Mr.....

A Mr. Kirkpatrick.

Q Mr. Kirkpatrick?

A Yes.

Q And prior to Mr. Kirkpatrick's resignation as secretary, you were also identified and employed with the Madison Company?

A Yes, since the formation on January 1st, '44.

Q And you have had charge of the books since its formation?

A Yes sir.

Q Now, you have prepared a statement concerning the amount of gas handled by Madison during 1945, its revenues and disbursements, and certain other accounts, is that right?

A Yes sir.

Q I would like to tender that as an exhibit.

THE CHAIRMAN: Yes, Exhibit 158.

STATEMENT OF GAS HANDLED BY MADISON NATURAL GAS COMPANY LIMITED DURING 1945, REVENUES, DISBURSEMENTS, etc. MARKED EXHIBIT 158.

Q MR. CHAMBERS: Mr. Smith, I noticed in your Exhibit 158 you have fairly extensive explanatory notes, and then schedules and statements?

A There are three schedules, yes.

Q I would suggest that you read your explanations, and if you want to comment on the statement as you go along, or afterwards, we will leave that to you?

A The attached schedules give a summary of the operations of Madison Natural Gas Company Limited for the year 1945. All gas volumes are shown in M.C.F. corrected to a basis of 14.4 lbs. and 60° Fahrenheit.

<u>Schedule 1 - Statement of gas Handled 1945</u>

Schedule 1 is primarily a statement showing the volumes of gas handled in 1945. This statement shows the gas handled by Madison as coming from the following sources.

1. Gas Cap Gas
2. Madison Crude Oil Gas.
3. Gas and Oil Refineries.
4. British American Gas Utilities.

Column 1.

Is the total wet gas entering the Madison gathering system.

Column 2

Shows the deductions made from Column 1 and in the main is made up of line and plant fuel, plant vapors, shrinkage for absorption gasoline extraction, etc.

Q Mr. Smith, I would suggest that when you are dealing with these columns, that you might give us time to refer to the column?

A Yes. I might add to that that on Column 2 the deductions shown there are deductions applicable to wet gas alone.

Column 3.

This column is the result of Column 1 less Column 2, together with residue gas received from Gas and Oil Refineries and British American Gas Utilities Limited.

Q You might explain that column 3 by turning to it.

A Column 3 is the result of Column 1 less Column 2, showing the corrected residue gas and the gas cap gas and the Madison crude oil gas, and at this point the residue gas from Gas and Oil Refineries and British American Gas Utilities enters our line and becomes part of Column 3, the total residue gas we have to account for.

Columns 4, 5, 6 and 7:

These columns are deductions and are self-explanatory. They cover return of fuel, flared gas, repressuring in Turner Valley, scrubbing plants, shrinkage, fuels, metering additions, etc. It is under Column 7 that the deductions

applicable to the gas being scrubbed is shown.

Column 8

This column is the net gas scrubbed and is the volume of gas which Madison must account for to the supplier as well as volumes shown in Columns 4 and 6.

Column 9

This is the volume leaving Turner Valley for storage in Bow Island.

Column 10

This shows the volumes of gas conserved by the gas cap wells and the corresponding volumes supplied by the crude oil wells, and Gas and Oil Refineries.

Q Do the red figures just cancel out the other figures, is that right?

A In Column 10 there is a red figure of 2,133,797, which is M.C.F. and that represents the amount of gas that has been conserved by the gas cap wells.

Q That is the same amount as the sum of the other two figures?

A That is the same amount, and of that gas that was conserved, Madison crude oil gas supplied 1,907,263 M.C.F., and Gas and Oil Refineries 226,534 M.C.F. There is no figure here for B.A.Gas Utilities as they are supposedly just delivering their share of the market.

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Column 11:

This column shows the volumes sold to market and corresponds in total to Column 12 or the share of the market.

In most totals they are exactly the same. It means the gas cap wells sold over their share of the market slightly and British American under slightly and Gas and Oil Products was less than 200 Mcf for the year.

The bottom part of this schedule shows the amounts of money paid by Madison for gas received during 1945. It will be noted that no payments have been made for volumes in columns 6 or 10, that is gas repressured in Turner Valley and conserved gas, as no value has as yet been set by the Board. The amounts of money shown in Column 9 for gas stored in Bow Island have been charged to Royalite Oil Company Limited. In other words Madison acts as a Trust Company and they charge Royalite and credit the producers.

Schedule 2 - Summary of Operating Costs Including Administration, Depreciation and Return on Capital Employed but not Gas Purchases.

This schedule corresponds to the estimated costs on Schedule M-9-A/45 in Exhibit 79 and submitted to the Board just one year ago but has been compiled by using actual costs for the year 1945.

Where necessary in computing costs such as Return and Depreciation, we have used as a starting basis the valuation as set up in our books January 1st, 1944, which is Ford, Bacon and Davis' valuation as shown on page 22 of Exhibit 59, less Going Value, and an adjustment for Girbotol Prepaid

Royalty. We have also taken as the gas reserve as of January 1st, 1944, 353,000,000 Mcf.

Q Just there, Mr. Smith, that 353 is the figure you use to correspond to the 361 ?

A That is the first figure we used in 1944. We did not know what it was and we just continued it on down.

Q I see.

A Columns 1, 2, 3, 4 and 5:

These columns have been computed in the same manner as the explanation given in our Exhibit 79 on pages 6 to 9 inclusive, with the exception that Column 2 not only includes our administration costs but also our account 'Miscellaneous General Operating Charges and Credits' but the distribution has been made in the same manner. Column 2 is made up as follows:

Administrative and General Expenses	73,605.38
Miscellaneous General Operating Charges and Credits, a credit of	2,256.07
Or a Net of	$71,349.31

Column 6:

This column has been added as balances remain in the service units. These are distributed in the same manner as the yearly charge was made to the operating accounts. The balances are mainly the Return on Capital Employed charged to them in this schedule.

Columns 7 and 8:

Each of our compressor plants handle both wet and dry gas. The dry gas at the No. 1 Plant is repressured for storage in Turner Valley and at the No. 3 Plant is the residue gas from Gas and Oil Refineries Limited. These

transfers have been made on the basis of horsepower hours developed and the calculations are as follows:

No. 1 Main Compressor:

	H.P. Hours	%	$
Wet Gas	18,892,000	86.213	175,258.04
Repressuring	3,021,120	13.787	28,026.89
	21,913,120	100	203,284.93

Dr. 25-24 $28,026.89

Cr. 25-10 $28,026.89

We made an internal transfer by charging 25-24 our main repressuring system with $28,026.89 and crediting to the No. 1 main compressor plant with a like amount, $28,026.89.

The No. 3 Compressor was on the same basis. The wet gas handled was 10,710,580 horsepower hours or 7.1630%, a total of $104,418.17. G. O. R. gas over the south transmission line was 4,242,140 horsepower hours, or 28.370% at a total cost to No. 3 Compressor Station and the cost $41,356.18. The total cost of the No. 3 Compressor plant shown in Columns 5 and 6 total $145,774.35. Here again an internal transfer has been made by charging our south residue system with $41,356.18 and crediting our No. 3 Compressor plant with $41,356.18.

On the lower half of Column 7 is a notation "Charging Back Credits to Account 58." That 58 Account was mentioned before as being miscellaneous general operating charges and credits. These were balances in the accounts already shown in Column 2 as a credit and have been shown this way rather than decreasing the amounts in Column 6 which were redistributed.

I might add that our Account 58, miscellaneous general operating charges and credits were charged into

that by crediting whichever it happens to be the balance is left in the service unit at the end of the year. That is what those accounts are.

Column 9

The amount of $1,050.00 shown opposite account 25-21 is the charge made to British American for steam during 1945 used on their residue gas transmission line.

Q MR. BLANCHARD: What item are you referring to Mr. Smith ?

A Column 9, the fifth figure down. $1,050.00.

Q Oh yes.

A The remaining amount of $92,634.32 in this column is our calculation of a charge to Royalite for gathering and compressing the gas to their absorption plant. This is arrived at by the following calculations:

Total Wet Gas Gathered and Processed			18,759,761 Mcf.
Retained by Gasoline Plant			
Plant vapors		1,052,090	
Shrinkage to A.G. extraction		340,904	
Returned drilling fuel		1,312,949	
Fuel to Gasoline plant		562,029	
Boiler Plt.	542,264		
Elec.Plt.	19,765		3,267,972 Mcf.

And the balance from the total gas gathered and processed is 15,491,789 Mcf.

Then we used for our ratio for distribution: Gasoline Plant 3,267,972 Mcf, 17.42012%, $92,634.32. The total cost is $531,766.26 and deducting 439,131.94 from that leaves $92,634.32 chargeable to the Gasoline Plant and the remaining amount stayed as the cost of gathering and compressing the wet gas.

Column 12:

This column shows the volumes of gas handled during the year. The only volumes shown needing

comments are those for compressing and gathering. These volumes represent the net wet gas handled for the market. As the costs allocated to wet gas for the gasoline plant have been deducted in Column 9 and the costs for dry gas in Column 8 giving costs in Columns 10 and 11 as the net costs for wet gas, the volumes also have to be net figures.

Again it will be noted that the volume handled for gathering and compressing, that is the balance of 15,491,789 Mcf, which is shown above arrived at by the total gas gathered and processed of 18,759,761 less 3,267,972 handled for Royalite.

Column 13:

Is simply the result of dividing costs in Column 11 by volumes in Column 12.

Column 14:

Shows the costs per Mcf. of gas sold during 1945. In other words, this is the cost which each revenue producing Mcf. must bear for operations performed by Madison exclusive of gas purchases.

Schedule 3 - Reconciliation of Net Profits for 1945 as Booked to Adjusted Profits Before Income Tax under Utility Principle

The first part of this schedule is a condensed Profit and Loss statement for 1945 taken from our books and shows the booked net profit as $79,957.82.

To arrive at the adjusted profits before Income Tax, we add back first the Income Tax and then the amount which should have been charged Royalite on the volumetric basis for gathering and compressing wet gas to the absorption plant (See explanation of Column 9, Schedule 2) -

which shows how that is arrived at - and then we deduct the amount actually charged during 1945.

This results in an adjusted gross profit before Income Tax of $270,286.77 or a gross earning of 10.7% on the capital employed in 1945.

In Column 4, Schedule 2, the Return on Capital Employed is $400,136.95 computed at a gross rate of 15.8333%; therefore, the loss in 1945 operations would be $129,850.18.

The last part of the schedule is a further reconciliation showing the total operating costs from column 11, schedule 2, to be $890,382.16 or a cost per Mcf. of gas sold to be approximately 5.4¢ and the cost for gas purchases per Mcf. of gas sold is 2.7¢, making a total of 8.1¢; whereas the actual sales averaged but 7.3¢. This loss of .8¢ applied to the total sales checks back to the loss shown above of $129,850.18.

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MR. CHAMBERS: I have no further questions.

THE CHAIRMAN: Did Counsel just get these statements this morning?

MR. CHAMBERS: I beg your pardon, sir?

THE CHAIRMAN: Did Counsel only get these statements this morning?

MR. CHAMBERS: Oh yes, they were just finished late last night.

THE CHAIRMAN: Anyone ready to go on with cross-examination on these statements at the moment?

MR. McDONALD: There are two questions I would like to ask, Mr.Chairman.

.....

CROSS-EXAMINATION BY MR. McDONALD

Q On Page 4 you have "Retained by gasoline plant", the last two items, "Boiler Plant 542,264," and "Electric Plant, 19,765," is that gas charged as an expense of the gasoline plant?

A No, no. What we are showing here is for the gathering and compressing of it, how much to charge the Gasoline Plant but no fuel is being charged.

Q No fuel is being charged?

A No, this is just the allocation of the gathering and compressing of it.

Q So that the fuel for the Gasoline Plant is the gathering and compressing cost, which is taken care of by the absorption plant?

A This takes care of that and I might add, it also goes through and takes care of, it also takes care of the compressor plant #1, the share that it supplies to the #1 Gasoline Plant.

Q Yes?

A They are interlocking.

Q And it takes care of that portion of the gas supplied as fuel to the Boiler Plant and the Electric Plant?

A That is right, the total proportion.

Q Now in this figure of 8.1 cents, being the total cost of the gas purchased and 2.7 cents, - now as I understand it the price paid in the field to the additions in the North end is 2 cents?

A That is right.

Q Now do you explain the increase to 2.7 cents?

A Yes. All producers are getting 2 cents except under, I believe it is Court Order #9, we pay the B.A., the British American, 77% of what we actually sell during that month, which works out between 5 and 6 cents per thousand M.C.F. It varies every month.

Q Yes, and it is because of that differential?

A It raises it from 2 cents to 2.69 cents.

Q Now the sales average 7.3 cents, that arises from the difference of the sales to the consumer market of 7¾ cents....

A That is right.

Q And to these others such as the Valley Gas Company?

A That is right. We have about five or six customers.

Q MR. HARVIE: You might mention those.

A The Canadian Western Natural Gas, Light, Heat & Power Company, which pays 7¾ cents on gas measured at, I believe it is 14 lbs, 50°, and for the month of January we sold the Imperial Oil Refineries Limited a small amount, that was at 7 cents, but now it is all going at 7¾ cents through the Canadian Western Natural Gas, Light, Heat & Power Company. There is only the one month in there, in 1945.

The Alberta Nitrogen Products was sold at 5.4 cents.

The Valley Pipe Line and the Royalite Oil Company sold at 7¾ cents.

Q MR. HARVIE: Is that the Valley Pipe Line Company and the Royalite Oil Company?

A Yes.

Q Those are two separate sales?

A Yes, two different customers.

Q What is the figure?

A 7¾ cents.

And the Valley Gas Company, they are in a little different position, all their gas is not metered and it is on the basis of 7¾ cents on their metered consumption, and 25% of their flat rate charges, and for 1945 that worked out at approximately 4 cents per M.C.F., 4-1/3 cents, I believe it was.

Q MR. HAMILTON: Can you give us the volume of the sales to each of those groups?

A Yes, if you like I can give you a statement here showing the volume at 14.4 plus 60° the volume which was actually sold and the price per M.C.F. and the value.

MR. CHAMBERS: I am wondering if the reporter might not just incorporate that in the record.

THE CHAIRMAN: That would be a simple way of doing it.

MR. CHAMBERS: But if Mr. Hamilton wants the statement in the meantime he can give it now.

MR.HAMILTON: No, that would be satisfactory.

WITNESS: I can read them out now if you like.

THE CHAIRMAN: Then it will be incorporated as part of the record.

Earl C.Smith,
Cross-Exam. by Mr. McDonald.

MADISON NATURAL GAS COMPANY LIMITED

1945 GAS SALES

	Volumes at 14.4# & 60°F MCF	Volumes as sold MCF	Price per MCF $	VALUE $
Canadian Western Natural Gas, Light, Heat & Power Co.Ltd.	12,818,669	12,928,682	.0775	1,001,972.88
Imperial Oil Refineries Limited ✓	174,285	182,307	.07	12,761.49
Alberta Nitrogen Products	3,155,281	3,183,936	.054	171,932.55
Valley Gas Company Limited	281,801	281,801	see below	12,148.91
Valley Pipe Line Company Limited	35,154	35,154	.0775	2,724.55
Royalite Oil Company Limited	44,281	44,281	.0775	3,431.81
		16,656,161	.0723439	1,204,972.19
	16,509,471		.0729867	

✓ January 1945 only - subsequently sold through C.W.N.G.L.H.P. Co.Ltd.

Sales to Valley Gas Company Limited not on metered figures but value taken at:

$7\frac{3}{4}$¢ on metered consumption

25% on flat rate charges

Average rate on 1945 sales .0431

THE CHAIRMAN: Mr. Fenerty?

MR. FENERTY: Nothing at the moment.

THE CHAIRMAN: Mr. Harvie?

MR.HARVIE: There is nothing that occurs to me either at the moment.

MR. CHAMBERS: I would suggest, Sir, to shorten this, not perhaps today but later, if there is any information that anybody wants, that they might talk to Mr.Smith, and I would like to make this clear, that the statement is based on certain assumptions.

THE CHAIRMAN: Quite so.

MR. CHAMBERS: And those assumptions are put in here as adding nothing to or taking anything away from the submission. They are made generally as to the rate base. Certain assumptions had to be made.

THE CHAIRMAN: That is so.

.....

CROSS-EXAMINATIONBY MR. BLANCHARD.

Q Mr.Smith, is there any charge in 1945 made to Royalite for compressing the gas returned to the North Return Fuel Line?

A You mean actual or our adjusted one here?

Q Well in any way?

A Yes.

Q In your Exhibit 158?

A Yes, on page 4 we show the total wet gas gathered and processed at 8 billion some odd thousand, and retained by the gasoline plant, "Plant vapours", "Shrinkage", and then "Return to Drilling Fuel", 1,312,949.

Q There are two operations in connection with that drilling, there is the gathering of the drilling fuel and then there is the

gathering of that amount of gas which is sent back.

A Well I do not believe that that is repressured afterwards, it goes back on its own pressure.

Q Is it not compressed to send it back?

A Not to my recollection.

MR. CHAMBERS: It is my information that it is not.

MR. BLANCHARD: It is my mistake and I think I asked that question before.

THE CHAIRMAN: Well are you through with Mr. Smith or do you want an opportunity of studying these statements and cross-examining him at a later date?

MR. STEER: That is what we would like to do.

MR. CHAMBERS: He will be available at any time if you will let us know.

THE CHAIRMAN: Very well, Mr.Smith.

Would it be of any advantage if I adjourned until 11 o'clock and perhaps we could then make some progress with a witness.

MR. McDONALD: I might say, Sir, in regard to this particular phase of the hearing, Mr. Plotkins has a matter that he wants to bring to the attention of the Board, and if we could have a little time this morning.

THE CHAIRMAN: That is with relation to the absorption plant?

MR. McDONALD: Well, with relation to the use of the gas prior to its introduction to the absorption plant.

THE CHAIRMAN: He wishes to give evidence, does he?

MR. McDONALD: Yes, to make a statement.

THE CHAIRMAN: Well he will have to go into the witness box.

MR. McDONALD: Are you readyto go ahead now?

THE CHAIRMAN: Have you anything further at the moment, Mr. Chambers?

MR. CHAMBERS: No.

THE CHAIRMAN: All right.

.....

LEON L. PLOTKINS, having been first duly sworn, examined by Mr. McDonald, testified as follows:-

Q Mr.Plotkins, you are operating a well, in fact several wells in Turner Valley?

A Yes.

Q And you have some plans with regard to the use of the gas in those wells?

A Yes.

Q Will you explain that to the Board?

A Our plans have been for several years now to take the gas and put up a plant to catalytically crack the gas, desulphur it and then depolymerize it. We have made laboratory tests in a small laboratory plant, and we know now we can recover about one gallon per thousand cubic feet of high blending, stable gasoline to 10 to 11 pounds vapour pressure, and we have worked out the costs and we feel that we should have the right, and that is what I am here to ask, the right to withhold our gas from the absorption plants and process it ourselves.

Now this process only converts the heavy end. It does not convert the methanes and 90% of the gas, after we are through with it, will be available for the pipe lines to take from our plant. Unfortunately, it will be sweet gas. It will be completely desulphured, and I suppose they may have to build a pipe line for it, but we

are quite ready at this stage to deliver the waste gas, the tail gas, to a pipe line if we are given the right to process our own gas from our own wells, or somebody else's. That is briefly the position.

Then there is another aspect that I want to draw to the attention of the Commission. This plant is only going to be a pilot plant for the purpose of determining more accurately the costs and possibilities, and it would be of value not only to Turner Valley but elsewhere. In other words, we are going to use the opportunity we have of treating a million and a half or two million cubic feet of our gas to actually work out the commercial process which will be then applicable anywhere in the Province where wet gas is available.

In order to determine its commercial possibilities on a larger scale, some two and a half years ago I made arrangements and obtained an option to buy gas in the North end of the field, covering, if I remember right, six or eight wells, and naturally at that time there was no plan for any gas gathering, or at least no public utility gas gathering organization, and that was done in order to be able to put up a plant of approximately 25 to 30 million, or whatever we had available, I should correct that.

(Go to page 5963).

At that time on a larger scale than the pilot plant that would give us gas on a commercial basis and we would then be able to develope the process in other fields. Now I want to point out to the Commission that the present absorption plant recovers approximately one-fifth of a gallon of high vapour pressure gasoline with unit use. It is only of use to refineries. It has to be transported through pipe lines because of its nature. The product of this plant I am talking about is stable gasoline that can be used directly in the car or can be used to blend with ordinary gasolines to improve the quality. Its value is such that it will not be used in cars. It has a greater value for blending purposes.

Now to resume. I am asking for the right to withhold our gas on the Sunray lease which is approximately three wells and for the right to go into the north end of the field where we have already options on other wells and withhold that gas in order to process the gas on our lease. That is briefly what I am asking.

Q THE CHAIRMAN: Are your wells in the north end connected with the gathering system now ?

A I do not think so. They are part of the Major wells. I do not know, but I do not assume at the present time any wells are connected.

Q Are your two Sunray wells connected to the pipe line now ?

A They are connected to the gas and oil temporary line. I made an arrangement at the time they gathered gas they could have it for nothing and I would not give them a contract and I told them why and they have been gathering it and we have not paid any attention to what they pay. The line is an

extension from the Anglo-Canadian Tank farm north of us approximately half a mile.

Q But that gas at the present time is going to Gas and Oil Products ?

A Yes, two wells.

Q And part of the residue going to the Calgary market ?

A That is correct.

Q Did you say two wells ?

A Yes. Another thing I want to point out in connection with our plant. It operates at atmospheric pressure or a little above with the result that we can take wells if the gas barely flows, whereas with the present absorption plant we have to give it to them at high pressure or compress it for them, so from an economical viewpoint it is more efficient than present absorption plant in Turner Valley.

Q It is a new process or idea ?

A No, it was three years ago, but today it is well known.

Q Is it covered by patent ?

A It is covered by caveats.

Q In Canada or the United States or both ?

A In Canada as far as I know. Mr. Gower, the man that made out the process is now Chief Research Chemist, head of the Research Bureau of the Saskatchewan Government.

Q Who ?

A Mr. C. E. Gower. He is the man that came to Turner Valley with another Chemist and spent six weeks there after the plant was put up and built a laboratory and made the tests to determine the possibilities.

Q Have you built your pilot plant yet ?

A No, we are now financing it and the site is ready and the

utilities and facilities are available there, but on account of materials and labour we have delayed and will probably delay another six months. We have already invested some $12,000.00 in the project.

Q Who is the discoverer of this process, do you know ?

A Mr. Gower. There is nothing radical or revolutionary in this process except it does with gas what has been done with crude oil. In fact it is exactly the same process as cracking and polymerizing gasses out of crude oil only some mechanical problems had to be overcome.

Q What would your pilot plant cost you ?

A Approximately $75,000.00 outside of the utilities.

Q And how much gas will your pilot plant handle a day ?

A It will be designed to handle two million a day efficiently.

Q What is the capacity of your three present wells ?

A A little better than a million and a half present flow. That is another thing I might point out that when conditions change which should happen fairly quick, the wells may not be measured by an oil flow. They may be measured by gas flow, if gas can be efficiently utilized then it will be a question of economics how wide we open our wells up.

Q Are there any adjoining low pressure wells where you can get the balance of your two million ?

A Yes, there is one well now south of us wasting gas and we are wasting gas at one well and I believe there are one or two more that are getting to the point where they will be wasting gas in a matter of months.

Q Then if you operate at atmospheric pressure you would then require pressure to send the dry gas to the market ?

A That is one of the problems. That is right. That we will have

to take into consideration.

Q Do you know of any compressor that is cheap enough to handle two million feet ?

A I don't know. First I would have to determine what we get out of the gas, whether it is worth compressing.

Q Yes, of course that brings in another problem to you as well?

A In the well ?

Q As well.

A Well you see you have to consider we will take low pressure wells that would normally not go into the pipe line and that will have to be balanced as against the other gas and I think it is more a matter of economics.

Q And if your pilot plant proves to be successful then you would have to build your main plant ?

A We would build the main plant in the north end of the field.

Q And what would that take per day ?

A That would take per day according to the gas I am able to get on the contract.

Q All right, but you would build your plant of some capacity. And what would be the capacity ?

A I would have to determine what gas we would have under contract and what is available at the time I made the contract. We had so many wells and the production was so much. I do not recall what it is. If the gas allowance is not increased or decreased we will have to base it on that. On the other hand they may change and have to base it on what gas we have but I expect we will have to build it big enough to make it a real commercial venture and therefore go out and pay premiums to get the gas necessary to process.

Q Have you seen the patent on this process Mr. Plotkins ?

A Oh I have more than seen them. I have worked them out in the "Lab" and seen the recoveries and the process.

Q What I am getting at is this, can one by reading the patent or to put it another way, could a Chemical Engineer by reading the patent know what the process was ?

A Oh yes, absolutely. I have the report and I have the recoveries and quite ready to submit them to the Board.

Q I think that is pretty vital Mr. Plotkins, because naturally I am not an Engineer and after a year I have not learned very much after listening to a lot of Engineers, but I would have to submit this proposal to my technical adviser before I could come to a conclusion.

A As I have said, it is nothing new today. It is being done in a good many places in the United States in maybe a slightly different manner or catalysis, but the process is certainly well known by those - the Phillips Petroleum have been doing it more or less for fifteen years.

Q In Texas ?

A Yes, Texas. The only difference this process has to what Phillips Petroleum has accomplished, it goes one step further. It converts the gas so it can be polymerized whereas in the past only refinery gasses were capable of being polymerized. I might say also that Mr. Gower sent me a further report and the basis of that report is not only we would be able to experiment as to recoveries of gasoline but we would be able to experiment with some of the recoveries in order to produce chemicals that are in demand in the Western Provinces for industrial processes and that will give us determinations that will be applicable to other fields in Alberta. I might say

also I have been working quite extensively in Moose Dome and we have considerable quantities of wet gas and there I should not have trouble in going ahead and putting in a plant once we know the process has been worked out.

MR. HARVIE: What field is that Mr. Plotkins ?

A The Moose Dome. There are already two big gas wells and it is a matter of drilling I think to get more.

THE CHAIRMAN: These two wells are shut in at the present time ?

A One is shut in and the other one is just being finished. I am trying to point out the implications of a pilot plant in Turner Valley. You want to look at it not strictly from a Turner Valley standpoint but on the industrial to what it will cost for other wells to assume a value that does not exist at the present time in the Province.

Q You might be called upon to underwrite part of the cost of the wells which are now connected to the Calgary market ?

A Out of the cost of what ?

Q Of the investment which has been made to carry your gas to the Calgary market ?

A Well I understand that if it is possible to recompress and put that gas in the lines then we will naturally have to bear our share out of the returns. If it is not possible or is not economical I think consideration should be given to not making us pay for something we are not going to get.

Q Well I have exhausted my line of questions with my limited knowledge. Is there any one else ?

CROSS-EXAMINED BY MR. CHAMBERS:

Q I understand Mr. Plotkins, the pilot plant which you have in

mind will do something between one and a half to two millions a day ?

A One and a half to two millions a day.

Q And if that proves successful in the working out of the process you have in mind you will make a larger plant ?

A It is not a question of proving successful. It is a question that the process is already successful, but what we are building the pilot plant for is like any other process mechanically it has to work and it is only a question of working out the mechanical details, not the chemical.

Q Well the pilot plant works out the mechanical ?

A Bugs it is called.

Q Then you had in mind you had what you call a larger commercial plant ?

A That is right.

Q Now as the name implies the size of it and whether you build it or not depends upon whether it is a commercial proposition and I would like to get from you if I could some idea of the minimum amount of gas per day that this commercial plant would handle. I think the Chairman spoke to you about that ?

A Well I can give you that and make studies and calculations. By commercial for us two millions cubic feet is commercial for our own Company acting with our own capital, not putting any capital into the market for an organization, limited liability company, public company, I should consider five million cubic feet would be commercial in order to take care of the overhead and give us a fair return on the capital.

Q So that if you were going to after you establish your pilot plant using from one to two millions a day, if you then went further and put in another plant it would probably be something

in the order of five millions a day as a minimum ?

A Yes.

Q If you were going to change from a pilot plant to a larger plant you would go to five millions a day ?

A That is correct.

MR. CHAMBERS: I do not suppose, sir, Mr. Plotkins has with him, but I do suggest it would be advisable if the Board should have on the record a specific statement as to the location of the wells, the Sunray. I have a general idea of where they are and also the wells he has options on because it is a matter that will have to be considered in the whole picture when the thing comes to be decided.

THE CHAIRMAN: I am afraid I assumed because I happened to know.

Q Where are your three wells ?

A Two miles west of Hartell.

Q What section are they in ?

A Thirteen.

Q Township ?

A Nineteen I think.

MR. HARVIE: 19-3.

Q MR. CHAMBERS: Then Mr. Plotkins, you spoke of having options on certain wells. The thing I am interested in whether there are options on any wells now tied into this system ?

A I would have to find that out. I have not been in touch with the wells for two years at least.

Q That is the point I would like to have.

Q THE CHAIRMAN: Will you file a statement with me, Mr. Plotkins, of the wells on which you have options to purchase

gas, giving the name of the owner and the exact location of the various wells ?

A I will sir.

Q And I want you to file with me also a statement of the process which will be employed in the pilot plant because I must submit that to my own Engineer.

A Before that I would like to have one thing. I would like to point this out. I would like to have the opportunity of consulting Mr. Gower to obtain his permission and it may be a week before I can file that.

Q And if Mr. Gower says no, Mr. Plotkins, quite frankly you do not need to come back. Unless I get that information and have an opportunity of submitting it to my Engineers there is no use coming back.

A Well I might point this out sir.

Q Mr. Gower is not going to dictate to me. That is the plain English of it.

A I want to explain my situation so you will understand that sir. I have put up, our Company has put up, the money we have gone to some expense. We are dependent upon Mr. Gower to work out the mechanical end of the process and he is the Engineer in charge. It is his process and naturally it would be better for me to ask him for his O. K. If he has enough protection and then if he has not then I suggest this procedure. Instead of making it public I ask permission to give it to the Board and have their Engineer consulted but not made public or part of the record. I think that is only reasonable.

Q I cannot do it that way.

A I am not saying it may not be perfectly all right but on the other hand I want to put myself on record. Now on the other

point, assuming he will not let us submit the process to the Board, am I to understand that under the present scheme we will be compelled to deliver the gas without processing ?

Q That is right.

A So that the position briefly then is this that a Company like ours or any other individual and this is only for the guidance of the Board I mean, will not have the opportunity of using the intelligence, capital and ability of going into Turner Valley and making experiments on a small scale in order to weigh the future possibilities anywhere else in the Province ?

Q You tell me there is lots of low pressure gas that you can use and you can use that ?

A Does that mean I can go and contract low pressure gas in Turner Valley ?

Q I won't stop you. It is being popped into the air now. If you can find a use for it I will be happy to see it used. Mr. Plotkins, your high pressure gas is now going to the City of Calgary. A very substantial investment has been made to take care of that gas. You say now to me let me withdraw that gas. You personally are willing to give me all information but you have a Chemist who may not. All I can say to you is that I cannot receive evidence that is not available to all parties concerned in the hearing and I am not going to allow the withdrawal of gas that is practically dedicated to the market for a price of which I know nothing.

(Go to Page 5973)

A It is quite logical, Sir. Now, if I might ask one question, Sir. It may be much more feasible for us to go into the South end of that where there is a considerable amount of gas going to waste, and if we can obtain the Board's permission, so that the Royalite, whatever company there that owns it, would deliver that gas to us in approximately the same quantity as we have now, and put a pilot plant in some other location, then it will accomplish the purpose without withdrawing any other gas from the market.

Q At the noment of I know of nothing to stop you from contracting the low pressure gas?

A Nothing except the contract. In other words, if the Royalite has it it will say no. If somebody else has it, then they will say no, if it is a company that is competing with us.

Q If you can find low pressure wells that can give you the gas and you haven't any difficulty in making a contract or, rather, if you find difficulty in making a contract, then you can come and make an application to the Board and we can deal with them.

Q Well, if you will provide in there at the present time, at least if you will consider it, that may be the proper way to handle the situation.

Q I will be happy to see every foot of low pressure gas in Turner Valley used, Mr. Plotkins, and I do not care who uses it as long as it is used. I will be very happy indeed.

A Am I to understand then that the Board will have authority to say to the owner, "You sell your gas to such and such a plant at such and such a price," at the going price?

Q Just at the moment, Mr. Plotkins, I would rather that you would go and read the Act for yourself.

A I see. That is fine, all right.

Q But I have fairly extensive powers, Mr. Plotkins?

A Well, I have not been familiar, I have not followed the proceedings unfortunately, I was busy and could not do it, so that I will have to acquaint myself with the Act.

Q On the other hand, Mr. Plotkins, any application you may make will get the fullest and the best possible consideration that the Board can give it.

A Thank you, Sir.

Q But that also must be accompanied by the information which the Board wants.

A Yes, naturally.

MR. BLANCHARD: May I ask a question?

THE CHAIRMAN: Yes.

.....

CROSS-EXAMINATION BY MR. BLANCHARD

Q Does Mr. Gower own this process?

A Yes, at the present time it is his personal property.

Q It is his personal property at the present time?

A Yes. All we have is an option on it.

Q And he has filed a caveat with the Patent Office at Ottawa?

A That is my information, yes.

Q Covering this process?

A Yes.

Q And he still has to develop the mechanical end of it?

A No, what he still has to do is to put up a pilot plant size, and if there are any mechanical difficulties in the operating of it, he has to iron them out.

Q And the plant, or the caveat at least, is filed in his name, is it not?

A I could not tell you, but I understand that he has a caveat

and we are not at this stage interested in the patent. I have no interest in it.

Q And he entered into some agreement with you to give you the rights in connection with it?

A Yes, he has entered into an agreement with me to give me the rights under the patent and to sell us an interest in the patent.

Q I see. And you would not be the outright owners of the patent then?

A I do not think so.

Q Have you agreed to buy out the patent or is Mr.Gower to retain an interest in it?

A Well, at the present time it is not quite clear what we have, but I surmise that we will form a company in which Mr. Gower and ourselves will be interested jointly in the process.

Q What company is that?

A I beg your pardon?

Q What company is that?

A It has yet to be formed.

Q I beg your pardon?

A It has yet to be formed.

Q I see.

A We are now negotiating.

Q So that the use of this patent by anyone else will depend on agreement?

A We intend to licence anyone.

Q Licence others using it?

A Yes, that is right.

Q That is all.

THE CHAIRMAN: Anything further, Gentlemen?

Mr. Plotkins, will you be able to let me know by Monday what

Mr.Gower is graciously going to do?

A It is not a matter of graciousness. I just want to point out that it is a matter of business courtesy. I have no strings on the patent. I just want to make contact with him and get his permission.

Q All right, thank you, Mr. Plotkins.

MR. CHAMBERS: I have additional copies of Exhibit 157.

(Copies of Exhibit 157 handed out to Counsel).

THE CHAIRMAN: Well, what more have we this morning?

MR. CHAMBERS: I have not anything else this morning, Sir. Mr. Hill has just arrived in the City within the last few minutes, and I would like to have a talk with him.

THE CHAIRMAN: I suppose that will give you an additional two hours' work on those statements and they will be ready for tomorrow?

MR. CHAMBERS: Which statements?

THE CHAIRMAN: With regard to the ones that were filed this morning. We have nothing more to go on with this morning then. Will Mr. Hill be finished with tomorrow morning?

MR. CHAMBERS: I think so, Sir. It might not take all morning.

THE CHAIRMAN: Well, if not, we will sit in the afternoon to finish him up. 9.30 tomorrow morning.

(The Hearing was then adjourned to be resumed at 9.30 A.M. March 14th, 1946).